Serial Number: 09/964,586 Filing Date: September 28, 2001

Title: PACKAGE STIFFENER (As Amended)

Assignee: Intel Corporation

REMARKS

Claims 2, 4, 7, 9, 65-68, 70-71, 74, 77-78, 80-84, and 86-88 have been amended. Claims 1 and 63 have been canceled. No claims have been added. As a result, claims 2-9, 65-89, and 91 are now pending in this application.

Interview Summary

Applicants acknowledge the telephone interview held on 30 March 2005 between the Examiner and Applicants' attorney during which claims 1 and 63 were generally discussed, as well as the objection to these claims. The Examiner indicated that further consideration may be required for some proposals. No agreement was reached. Applicants sincerely thank the Examiner for the interview.

Claim Objections

The Examiner objected to claims 1 and 63. In particular, the Action recites on page 2 that it was not clear to the Examiner "what thickness value is considered to define the substrate being the thin-core substrate."

The objection is moot, as Applicants have cancelled claims 1 and 63.

§103 Rejection of the Claims

Claims 1, 4-7, 9, 64-66, 68, 70, 74, 75, 82 and 83 were rejected under 35 USC §103(a) as being unpatentable over Dibene II, et al., U.S. 6,452,113 (Dibene '113) in view of Dibene, II et al., U.S. 6,452,804 (Dibene '804).

Claims 2, 3, 67, 69, 71-73, 80, 81, 87 and 88 were also rejected under 35 USC §103(a) as being unpatentable over Dibene '113 and Dibene '804, and further in view of Dehaine et al. (U.S. 5,925,925).

Claim 8 was also rejected under 35 USC §103(a) as being unpatentable over Dibene '113 and Dibene '804 and further in view of Dehaine et al. and Banks et al. (U.S. 6,015,722).

Independent claims 1 and 63 have been cancelled. Therefore, the rejection with respect to these claims is moot.

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As for the rejected dependent claims 2-9, 65-75, 79-83, 85, and 87-88, they now depend directly or indirectly from allowable independent claims 77, 78, 84, or 86.

Allowable Subject Matter

Applicants acknowledge with thanks that claims 76, 89 and 91 were allowed.

Claims 77-79 and 84-86 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Page 17 of the Office Action mailed August 23, 2004 specifically states:

"The following is an examiner's statement of reasons for allowance: The references of record do not teach either singularly or in combination at least the limitations "the package stiffener includes a plurality of cooling fins" or "the package stiffener includes a capacitor", or "the PGID includes a plurality of cooling fins" or "the PGID includes a capacitor" in an integrated circuit (IC) package having a substrate where a power/ground/impedance deliverer (PGID) is disposed upon the die-side of the substrate and being spaced from the die to deliver low-inductance current to the die while concurrently providing stiffening support to the substrate."

Accordingly, claims 77, 78, 84, and 86 have been rewritten in independent form. However, each of the limitations of the respective base claims (e.g., claims 1 and 63) have not been included in rewritten independent claims 77, 78, 84, 86. Specifically, the terms "thin-core" and "coreless," which were added to claims 1 and 63 in the Amendment of November 22, 2004, have been omitted. As the omitted terms were not in examiner's statement of reasons for allowance of these claims, Applicants believe the currently rewritten independent claims are now in condition for allowance. Claims 79 and 85 depend from the allowable, rewritten claims 78 and 84, respectively, and therefore have not been rewritten. Accordingly, Applicants believe claims 77-79 and 84-86 are in condition for allowance.

Claims 2-9, 65-75, 79-83, 85, 87-89 and 91 have been amended to depend from one of independent claims 76, 77, 78, 84, and 86 and incorporate all of the limitations therein. Therefore, these dependent claims are also asserted to be allowable. Applicants consider additional elements of the dependent claims to further distinguish over the cited references, and Applicants reserve the right to present arguments to this effect at a later date.

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Conclusion

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney, Lucinda Price (located in Gainesville, Florida), at (352) 373-8804, or Applicants' below-named representative (located in Minneapolis, Minnesota) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

KRISTOPHER FRUTSCHY ET AL.

By their Representatives,

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Date (15, 2005)

Ann M. McCrackin

Reg. No. 42,858

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450,

Alexandria, VA 22313-1450, on this 15th day of April 2005.

Name

Signature